MISHAP INVESTIGATIONS

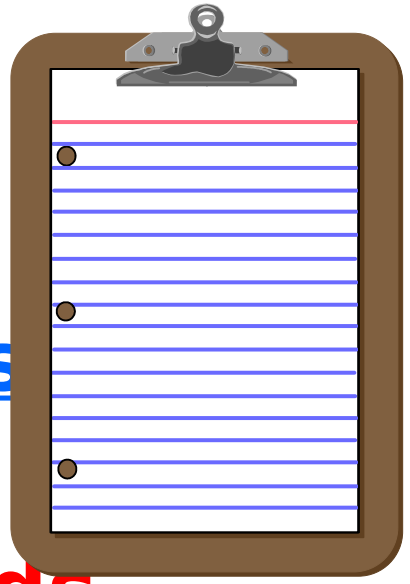
SIR Part 1

CONDUCT OF THE BOARD

- Assistance to the AMB does not imply membership
- Within Naval Aviation, the safety investigation takes priority over all other investigations in:
  - interviewing witnesses,
  - getting and analyzing evidence,
  - inspecting the mishap scene.
- “Do not assign AMB members to any JAG, Administrative Boards, FNAEB’s, etc. as a result of the same mishap.”
- Senior member (normally unit XO) is responsible for:
  - AMB Training
  - AMB membership/augmentation/excusal
  - Request NSC approval for assistance / other inter-component Service observers / AMB augmentation

AMB DELIBERATIONS

- What the AMB **knows** (JUST THE FACTS)
  - Evidence
- What the AMB **thinks**
  - Analysis
- What the AMB **determines**
  - Conclusions
- What the AMB **recommends**
  - Recommendations



SIR: EVIDENCE

- “Just the facts, Ma’am”
- Identify Privilege from Non-Privilege evidence
  - Privileged
- Cite the source
  - **Who <u>said</u> what: *(9) CO STATED THAT…***
  - **Document <u>indicated</u> what: *(3) THE FLIGHT SCHEDULE INDICATES THAT…***
- Identify origin/location of evidence
  - Attachments
- Facts and Evidence vs. Thoughts or Deliberation

EX LOE: “GOT MILK!?”

- According to the fuel chit, the aircraft took 2,000 lb. of fuel at 1425(L). (ref)
- Cargo manifest listed 3 pallets of milk at 1,000 lb. per pallet for a total weight of 3,000 lb. (ref)
- According to MHAC’s kneeboard card, aircraft weighed 20,300lb. with cargo and fuel. Kneeboard calculation also indicated 71% torque required for HOGE. (ref)
- (P) AMB determined that each carton of milk weighed 1 kilogram. There were 1,000 cartons per pallet for total cargo weight of 6,600 lb. (ref)
- (P) AMB calculated aircraft weight with cargo to be 23,900lb.and Torque Required for HOGE is 85%. (ref)
- CH-46 NATOPS indicates max gross weight is 23,000 lb. and max torque available in mil is 81%. (ref)

FACTS

- You need to get the facts first
- The facts will tell a story of a REJECTED or ACCEPTED Casual Factor…

HUMAN FACTOR

MP did this
NATOPs or 3710 or FAR/AIM states this
CO's guidance was this
MP did it RIGHT or WRONG

MATERIAL FACTOR

Maintenance did this procedure
4790 or MIMs or Checklist says this
EI results stated
Part FAILED or WORKED

ORGANIZE EVIDENCE

By Time

- Background Stuff
  - Aircrew
  - Airplane
  - Squadron
- Mishap Flight
- Post Crash Activities
- What the investigation revealed

By Functional Area

- Aircraft
  - Maint History
  - Flight History
- Aircrew
  - Trng, Aeromed, etc
- Supervisory Issues
  - Squadron
  - Higher Echelon

AMB OTHERS

- Keep track of your sources (you'll need them for the final SIR package):
  - If you use a witness interviews:
    - Non-Privileged
    - Privileged
  - If you use a Publication (ie: NATOPs) its usually a page
    - Make a COPY of THOSE PAGES and your source is:
      - Excerpts from S-3B NATOPS
  - If an AMB member jots down calculations (time, speed, distance) on a piece of paper, save it, make a copy and your becomes:
    - AMB calculations on time to impact

- You will also NEED to have evidence supporting REJECTED CASUAL FACTORs

- SIR Clean-up: If you DON'T use a line of evidence in any of the SIR "DELETE" it from report

NATURAL PROGRESSION

REJECTED **ACCEPTED**

AMB Deliberations – ANALYSIS

↑

Dig Deeper – MORE FACTS

↑

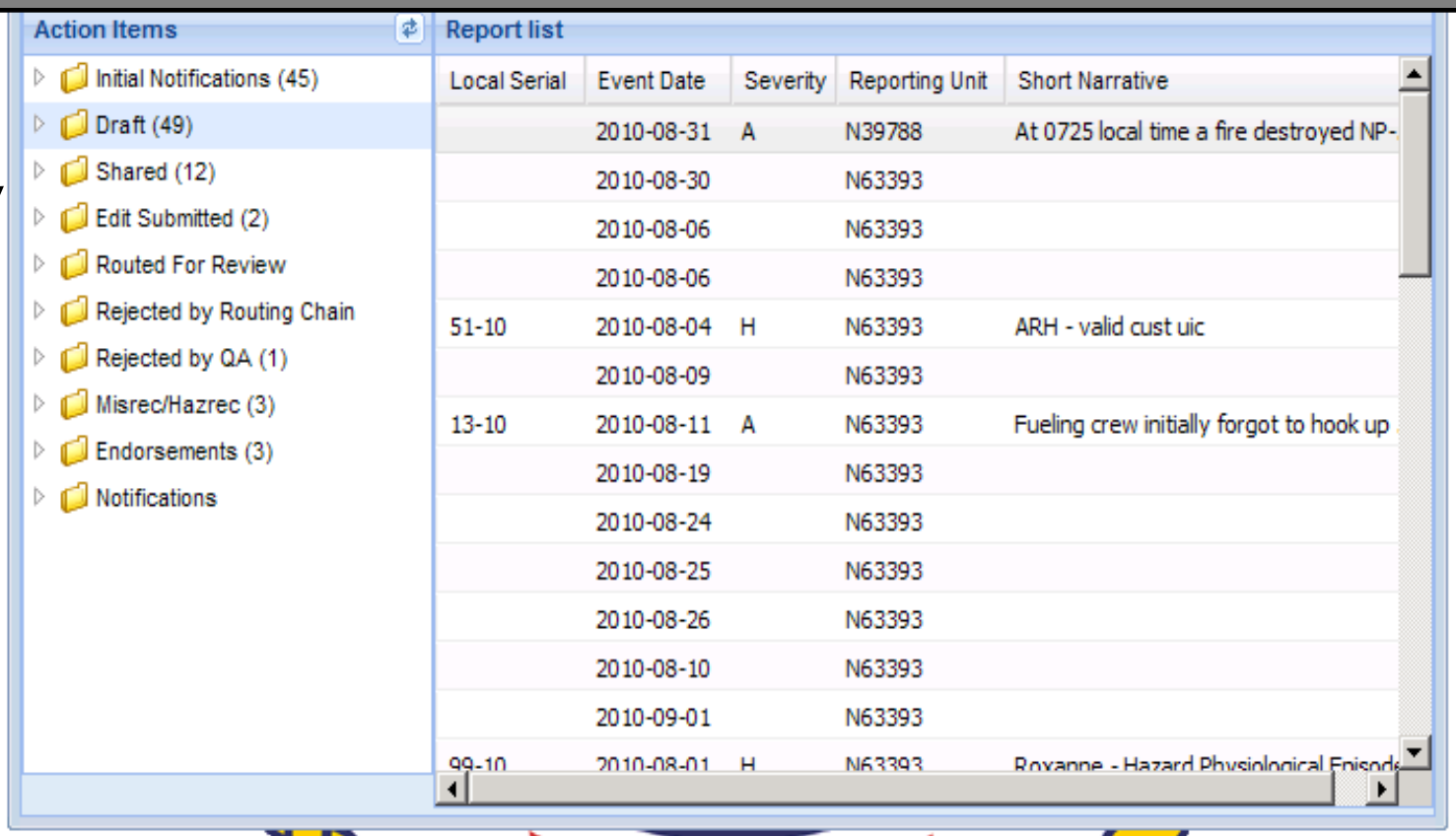
Dig Deeper – MORE FACTS

↑

EDUCATED

CURIOSITY

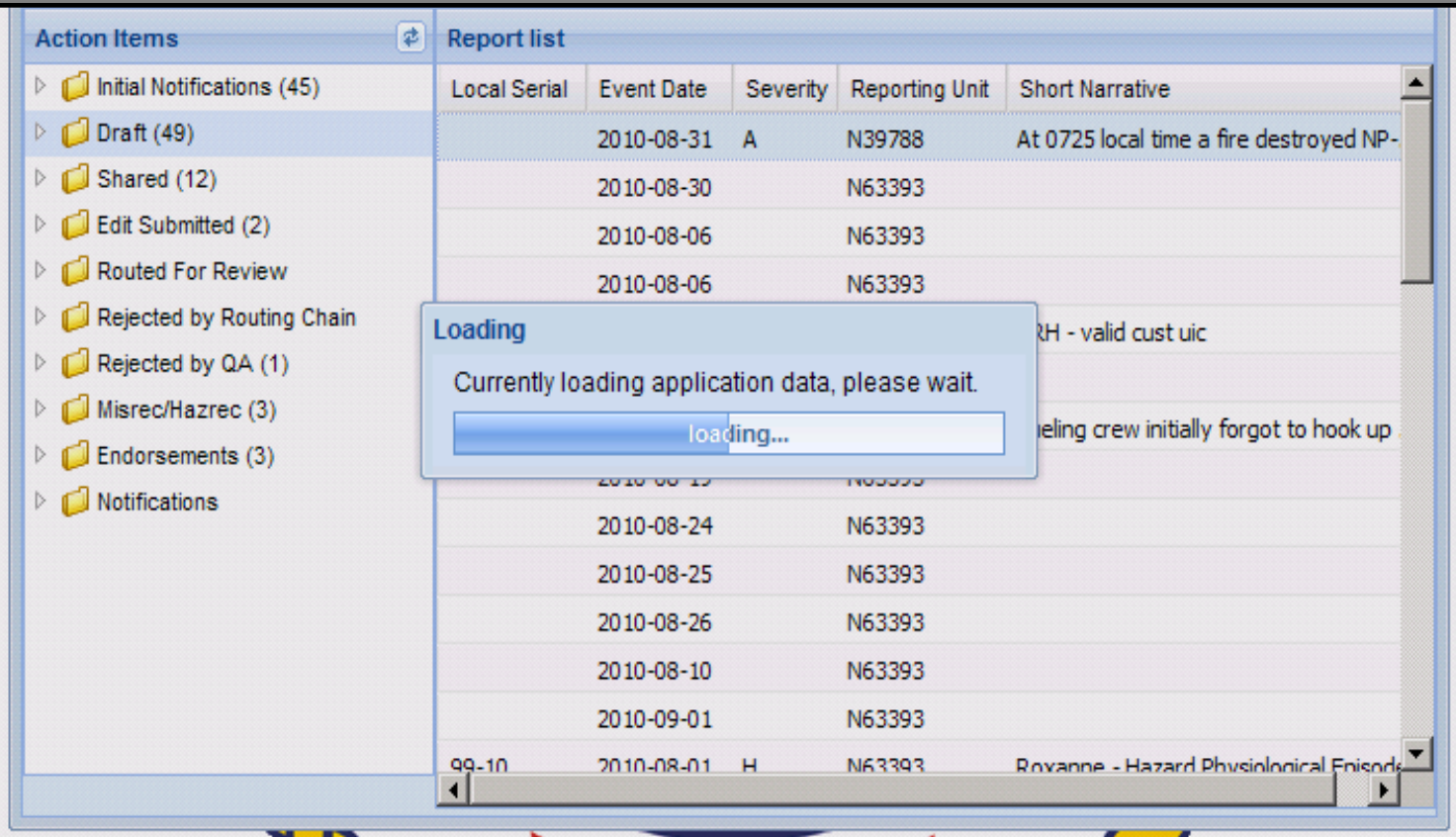
Initial screen after log-in. Select applicable folder.



EST. 1951

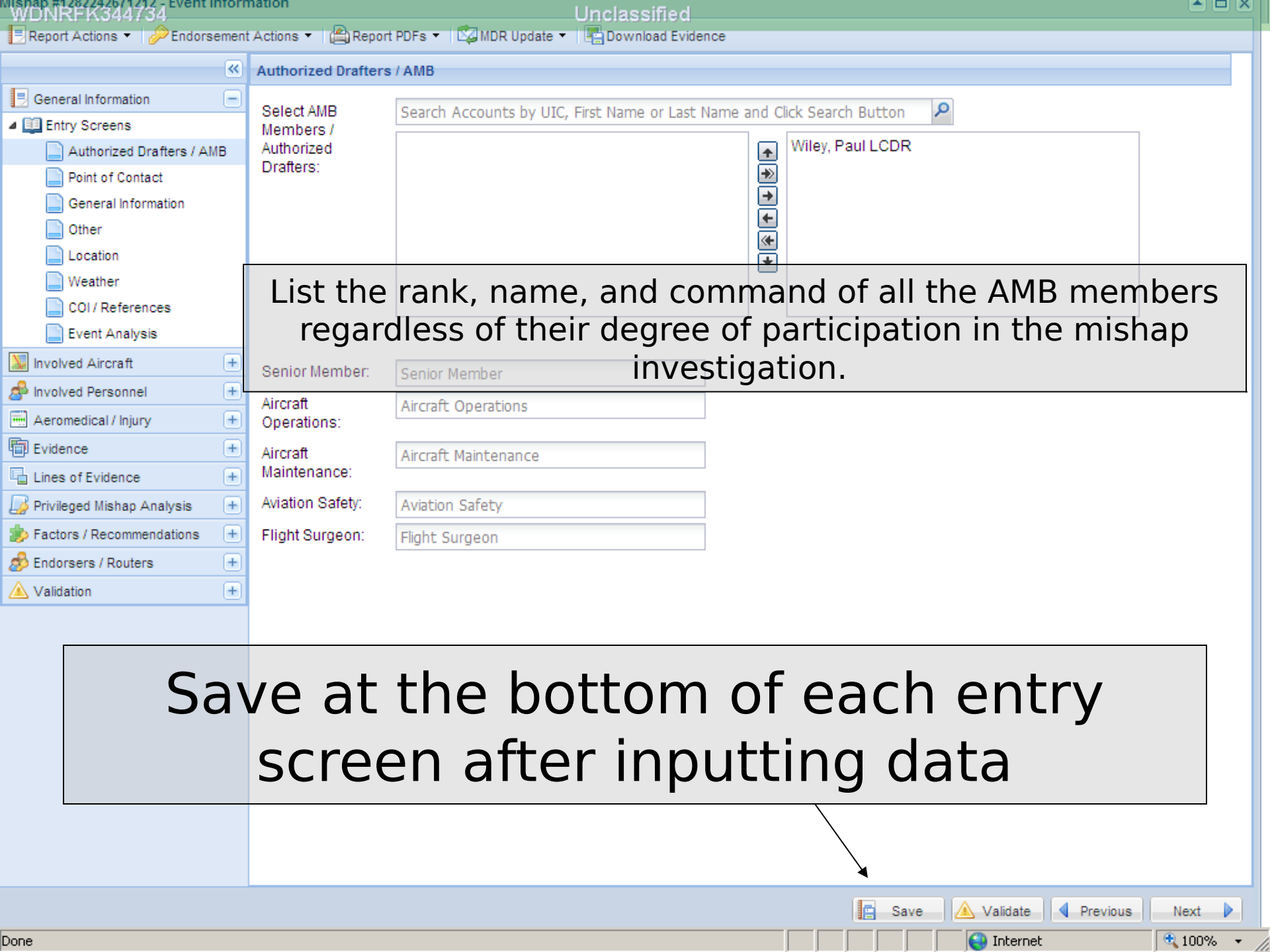
Start

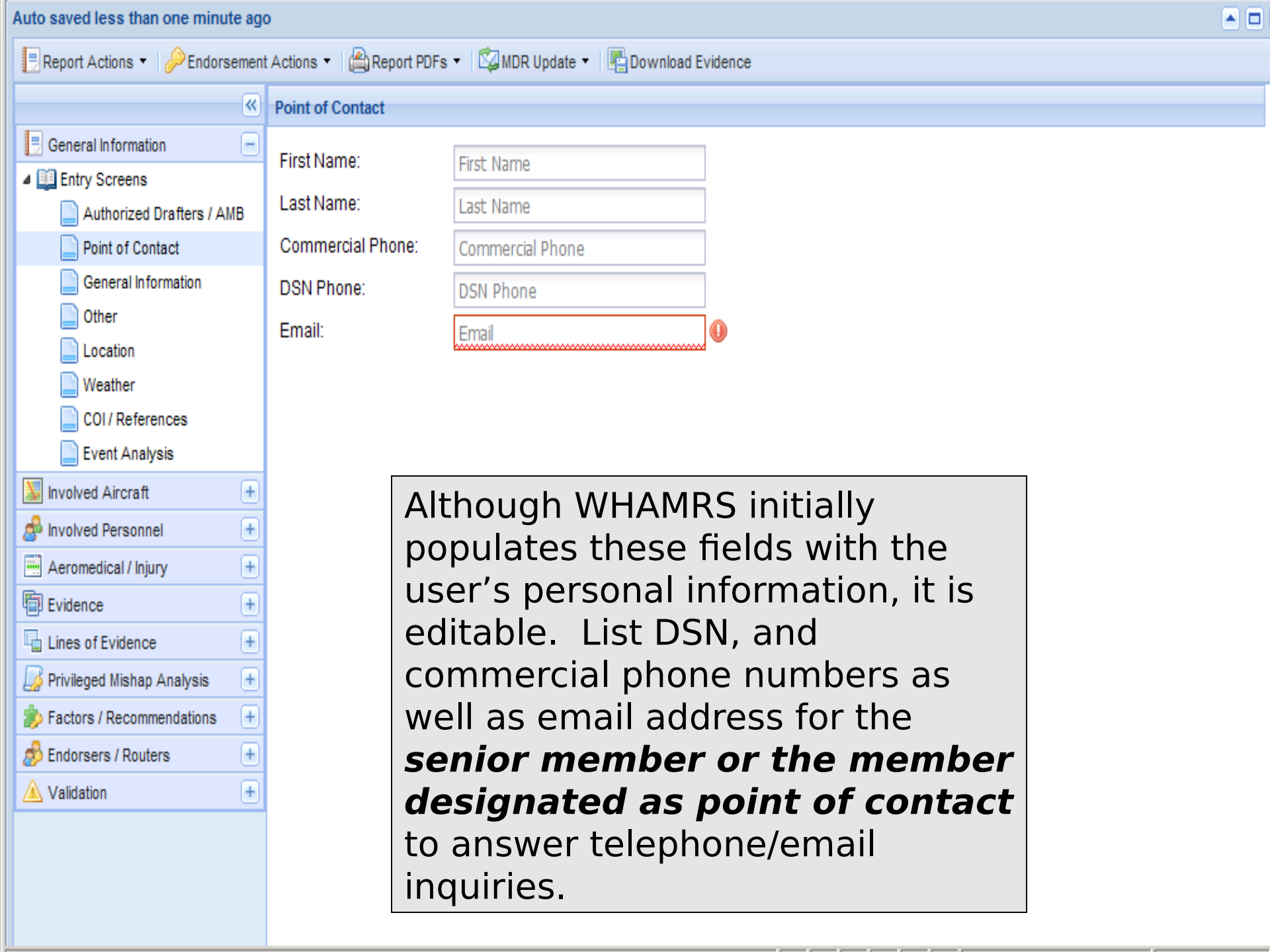
And file in that folder. File will then load for data entry.

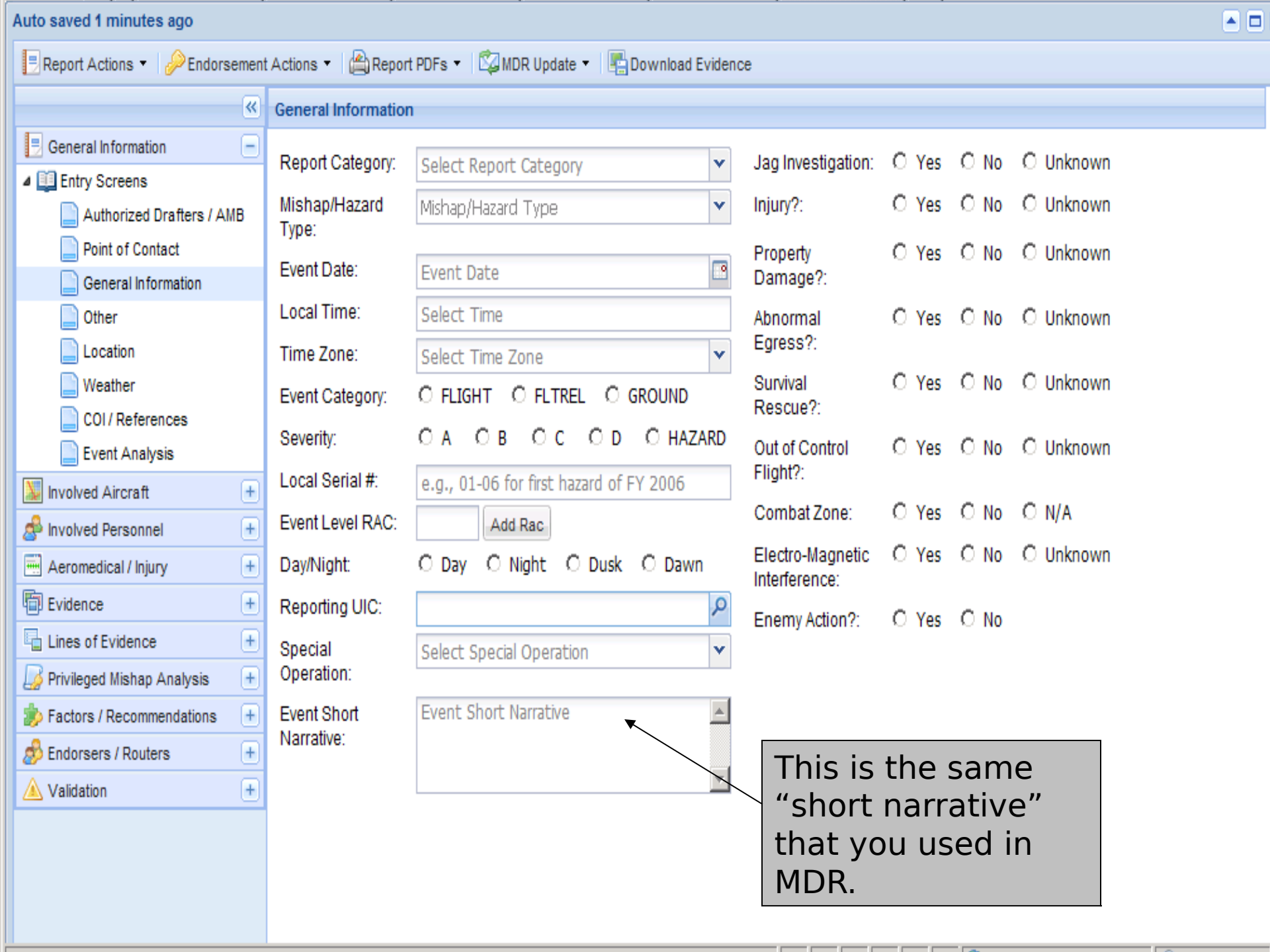


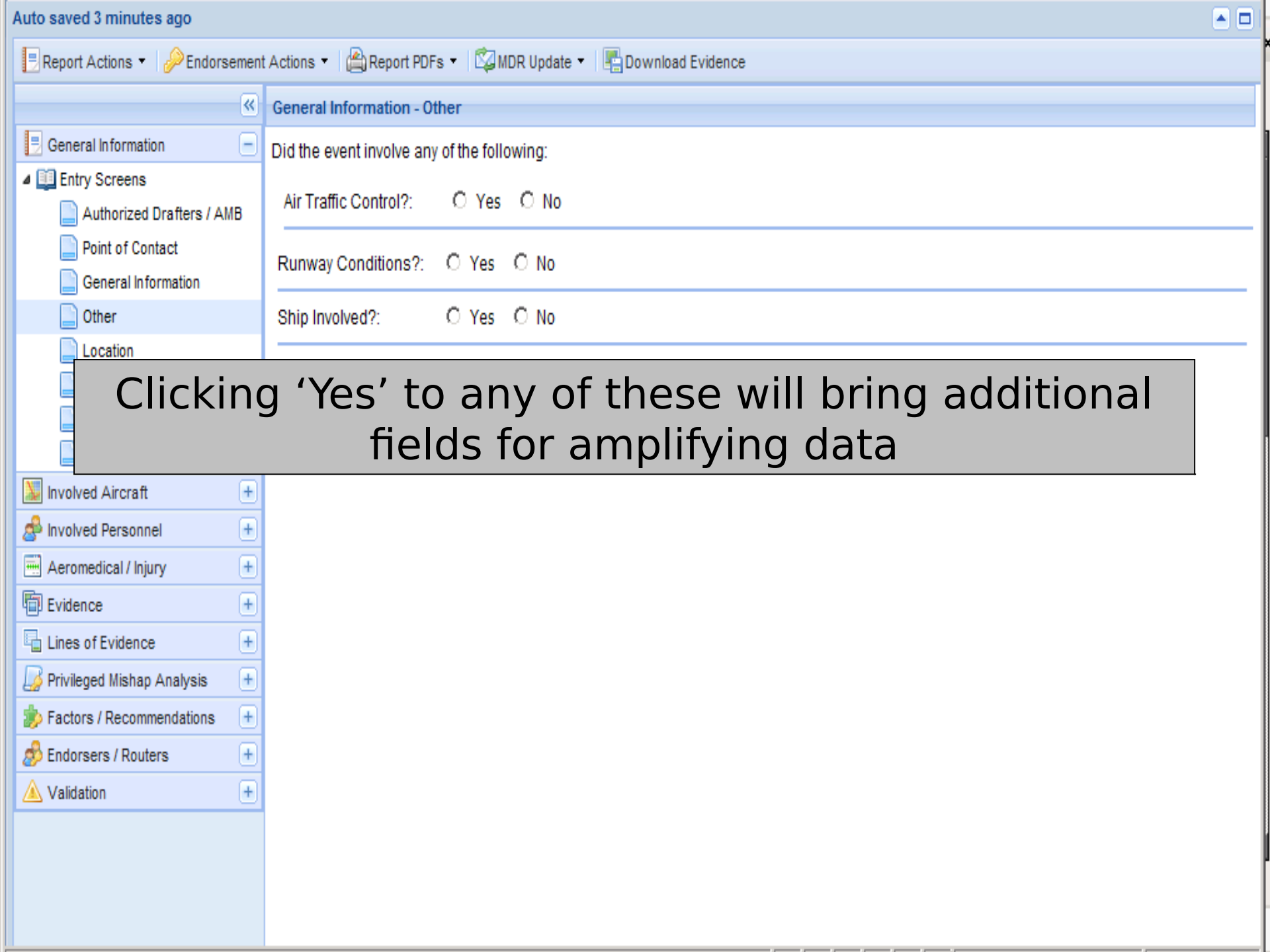
EST. 1951

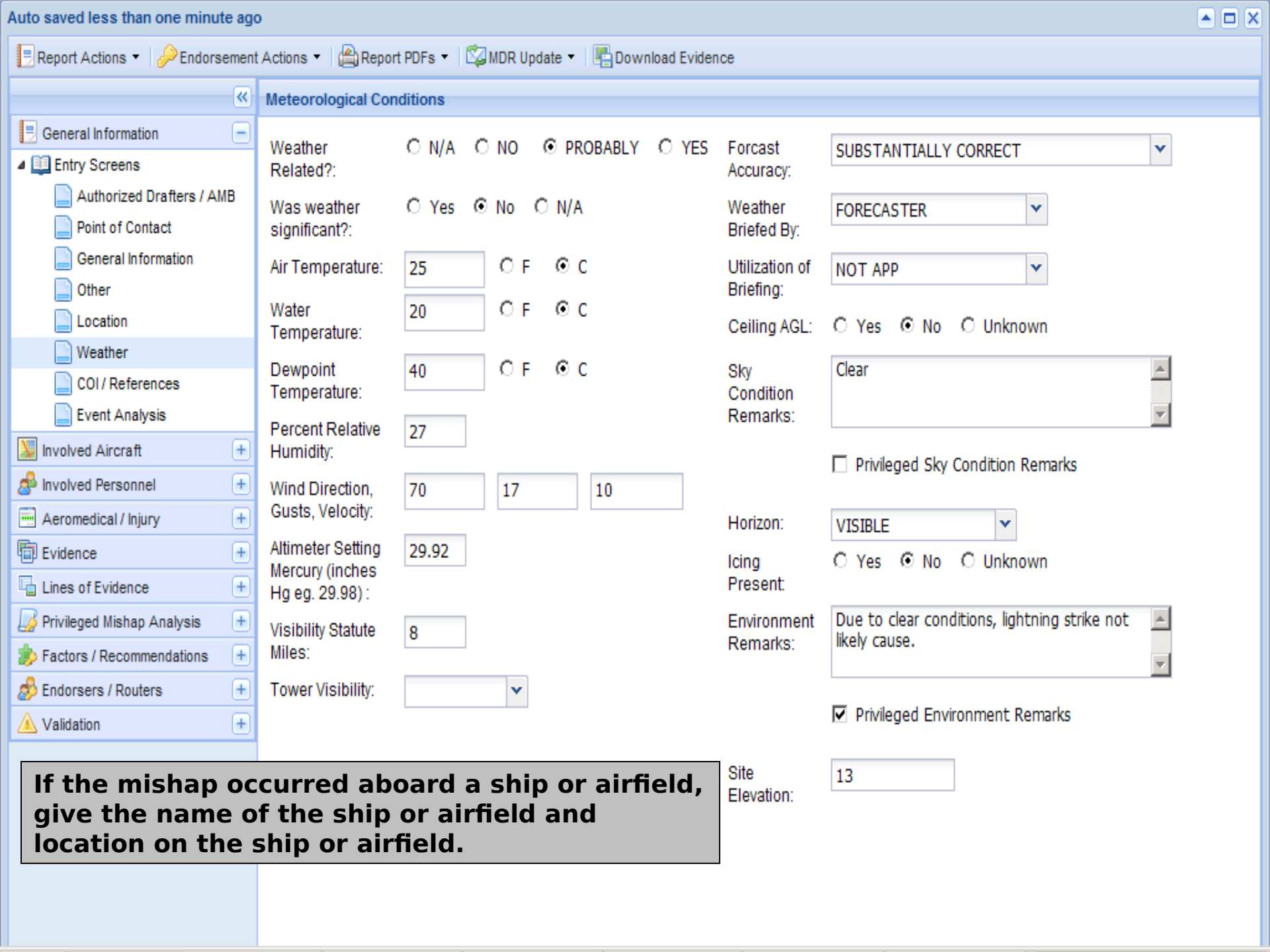
Collective
Page
Tools
NAVAL SAFETY CENTER
EST. 1951
Aviation Mishap/ Hazard entry
Desktop
Initial Notification
Aviation Mishap/Hazard Entry
Search/Edit
My Workspace
Account Maintenance
Pre-formatted Reports
Log off
Start
Done
Internet
100%

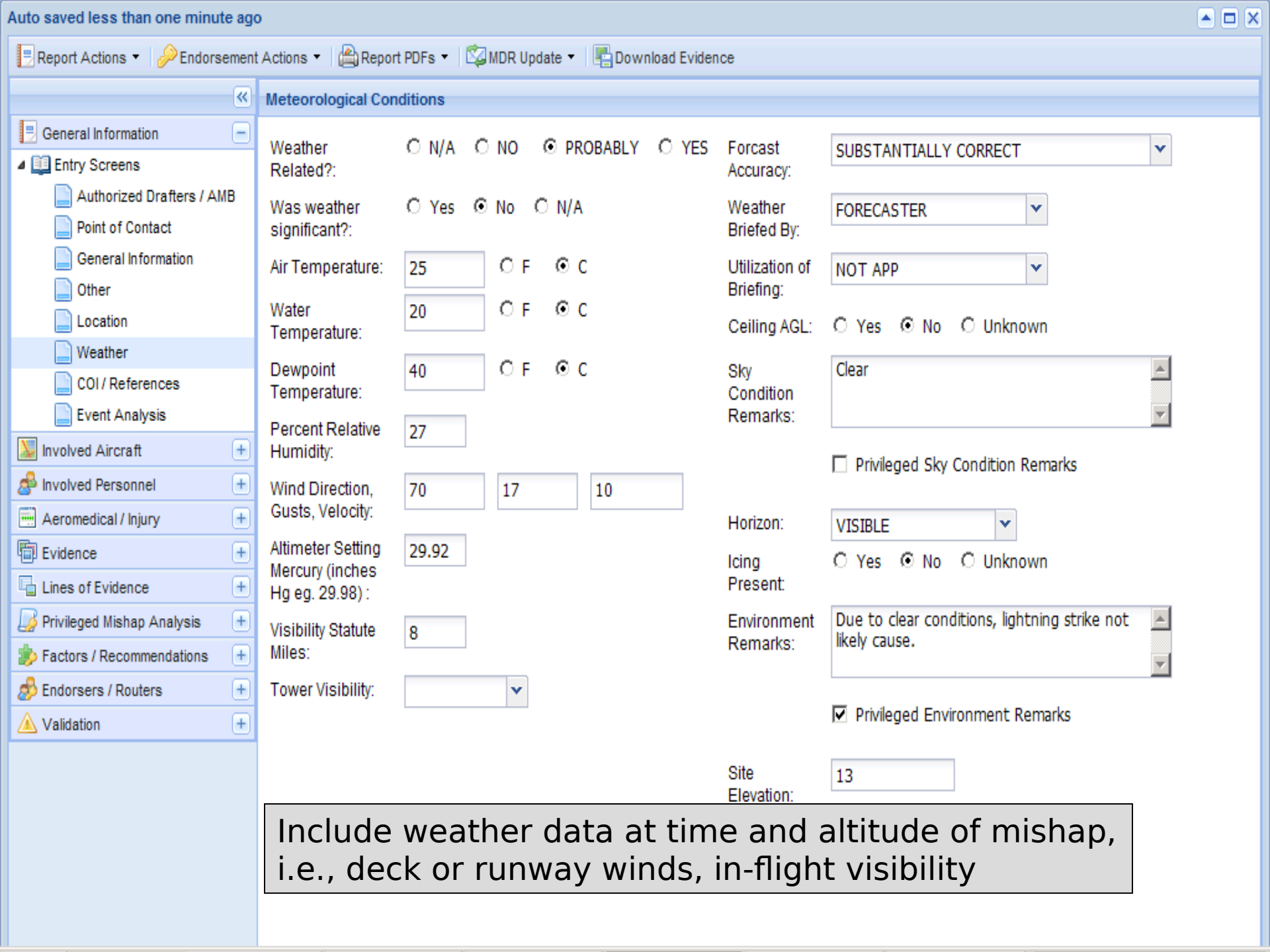

Mishap #1282242671212 - Event Information
WDNRFK344734
Unclassified
Report Actions
Endorsement Actions
Report PDFs
MDR Update
Download Evidence
General Information
Entry Screens
Authorized Drafters / AMB
Point of Contact
General Information
Other
Location
Weather
COI / References
Event Analysis
Involved Aircraft
Involved Personnel
Aeromedical / Injury
Evidence
Lines of Evidence
Privileged Mishap Analysis
Factors / Recommendations
Endorsers / Routers
Validation
Authorized Drafters / AMB
Select AMB Members / Authorized Drafters:
Search Accounts by UIC, First Name or Last Name and Click Search Button
Wiley, Paul LCDR
List the rank, name, and command of all the AMB members regardless of their degree of participation in the mishap investigation.
Senior Member:
Senior Member
Aircraft Operations:
Aircraft Operations
Aircraft Maintenance:
Aircraft Maintenance
Aviation Safety:
Aviation Safety
Flight Surgeon:
Flight Surgeon
Save at the bottom of each entry screen after inputting data
Save
Validate
Previous
Next
Done
Internet
100%


Auto saved less than one minute ago
Report Actions
Endorsement Actions
Report PDFs
MDR Update
Download Evidence
General Information
Entry Screens
Authorized Drafters / AMB
Point of Contact
General Information
Other
Location
Weather
COI / References
Event Analysis
Involved Aircraft
Involved Personnel
Aeromedical / Injury
Evidence
Lines of Evidence
Privileged Mishap Analysis
Factors / Recommendations
Endorsers / Routers
Validation
Point of Contact
First Name:
First Name
Last Name:
Last Name
Commercial Phone:
Commercial Phone
DSN Phone:
DSN Phone
Email:
Email
Although WHAMRS initially populates these fields with the user's personal information, it is editable. List DSN, and commercial phone numbers as well as email address for the ***senior member or the member designated as point of contact*** to answer telephone/email inquiries.


Auto saved 1 minutes ago
Report Actions
Endorsement Actions
Report PDFs
MDR Update
Download Evidence
General Information
Entry Screens
Authorized Drafters / AMB
Point of Contact
General Information
Other
Location
Weather
COI / References
Event Analysis
Involved Aircraft
Involved Personnel
Aeromedical / Injury
Evidence
Lines of Evidence
Privileged Mishap Analysis
Factors / Recommendations
Endorsers / Routers
Validation
Report Category:
Select Report Category
Mishap/Hazard Type:
Mishap/Hazard Type
Event Date:
Event Date
Local Time:
Select Time
Time Zone:
Select Time Zone
Event Category:
FLIGHT
FLTREL
GROUND
Severity:
A
B
C
D
HAZARD
Local Serial #:
e.g., 01-06 for first hazard of FY 2006
Event Level RAC:
Add Rac
Day/Night:
Day
Night
Dusk
Dawn
Reporting UIC:
Special Operation:
Select Special Operation
Event Short Narrative:
Event Short Narrative
Jag Investigation:
Injury?:
Property Damage?:
Abnormal Egress?:
Survival Rescue?:
Out of Control Flight?:
Combat Zone:
Electro-Magnetic Interference:
Enemy Action?:
Yes
No
Unknown
N/A
This is the same "short narrative" that you used in MDR.


Auto saved 3 minutes ago
Report Actions
Endorsement Actions
Report PDFs
MDR Update
Download Evidence
General Information - Other
General Information
Entry Screens
Authorized Drafters / AMB
Point of Contact
General Information
Other
Location
Involved Aircraft
Involved Personnel
Aeromedical / Injury
Evidence
Lines of Evidence
Privileged Mishap Analysis
Factors / Recommendations
Endorsers / Routers
Validation
Did the event involve any of the following:
Air Traffic Control?: Yes No
Runway Conditions?: Yes No
Ship Involved?: Yes No
Clicking ‘Yes’ to any of these will bring additional fields for amplifying data


Auto saved less than one minute ago
Report Actions
Endorsement Actions
Report PDFs
MDR Update
Download Evidence
General Information
Entry Screens
Authorized Drafters / AMB
Point of Contact
General Information
Other
Location
Weather
COI / References
Event Analysis
Involved Aircraft
Involved Personnel
Aeromedical / Injury
Evidence
Lines of Evidence
Privileged Mishap Analysis
Factors / Recommendations
Endorsers / Routers
Validation
Meteorological Conditions
Weather Related?: N/A NO PROBABLY YES
Was weather significant?: Yes No N/A
Air Temperature: 25 F C
Water Temperature: 20 F C
Dewpoint Temperature: 40 F C
Percent Relative Humidity: 27
Wind Direction, Gusts, Velocity: 70 17 10
Altimeter Setting Mercury (inches Hg eg. 29.98) : 29.92
Visibility Statute Miles: 8
Tower Visibility:
Forcast Accuracy: SUBSTANTIALLY CORRECT
Weather Briefed By: FORECASTER
Utilization of Briefing: NOT APP
Ceiling AGL: Yes No Unknown
Sky Condition Remarks: Clear
Privileged Sky Condition Remarks
Horizon: VISIBLE
Icing Present: Yes No Unknown
Environment Remarks: Due to clear conditions, lightning strike not likely cause.
Privileged Environment Remarks
Site Elevation: 13
If the mishap occurred aboard a ship or airfield, give the name of the ship or airfield and location on the ship or airfield.


Auto saved less than one minute ago
Report Actions
Endorsement Actions
Report PDFs
MDR Update
Download Evidence
General Information
Entry Screens
Authorized Drafters / AMB
Point of Contact
General Information
Other
Location
Weather
COI / References
Event Analysis
Involved Aircraft
Involved Personnel
Aeromedical / Injury
Evidence
Lines of Evidence
Privileged Mishap Analysis
Factors / Recommendations
Endorsers / Routers
Validation
Meteorological Conditions
Weather Related?: N/A NO PROBABLY YES
Was weather significant?: Yes No N/A
Air Temperature: 25 F C
Water Temperature: 20 F C
Dewpoint Temperature: 40 F C
Percent Relative Humidity: 27
Wind Direction, Gusts, Velocity: 70 17 10
Altimeter Setting Mercury (inches Hg eg. 29.98) : 29.92
Visibility Statute Miles: 8
Tower Visibility:
Forcast Accuracy: SUBSTANTIALLY CORRECT
Weather Briefed By: FORECASTER
Utilization of Briefing: NOT APP
Ceiling AGL: Yes No Unknown
Sky Condition Remarks: Clear
Privileged Sky Condition Remarks
Horizon: VISIBLE
Icing Present: Yes No Unknown
Environment Remarks: Due to clear conditions, lightning strike not likely cause.
Privileged Environment Remarks
Site Elevation: 13
Include weather data at time and altitude of mishap, i.e., deck or runway winds, in-flight visibility

Auto saved 4 minutes ago

Report Actions | Endorsement Actions | Report PDFs | MDR Update | Download Evidence

- General Information
  - Entry Screens
    - Authorized Drafters / AMB
    - Point of Contact
    - General Information
    - Other
    - Location
    - Weather
    - COI / References
    - Event Analysis
- Involved Aircraft
- Involved Personnel
- Aeromedical / Injury
- Evidence
- Lines of Evidence
- Privileged Mishap Analysis
- Factors / Recommendations
- Endorsers / Routers
- Validation

Community of Interest

Commands/CADs

Commands:

Search Commands by UIC, Name or Squadron and Click Search Button

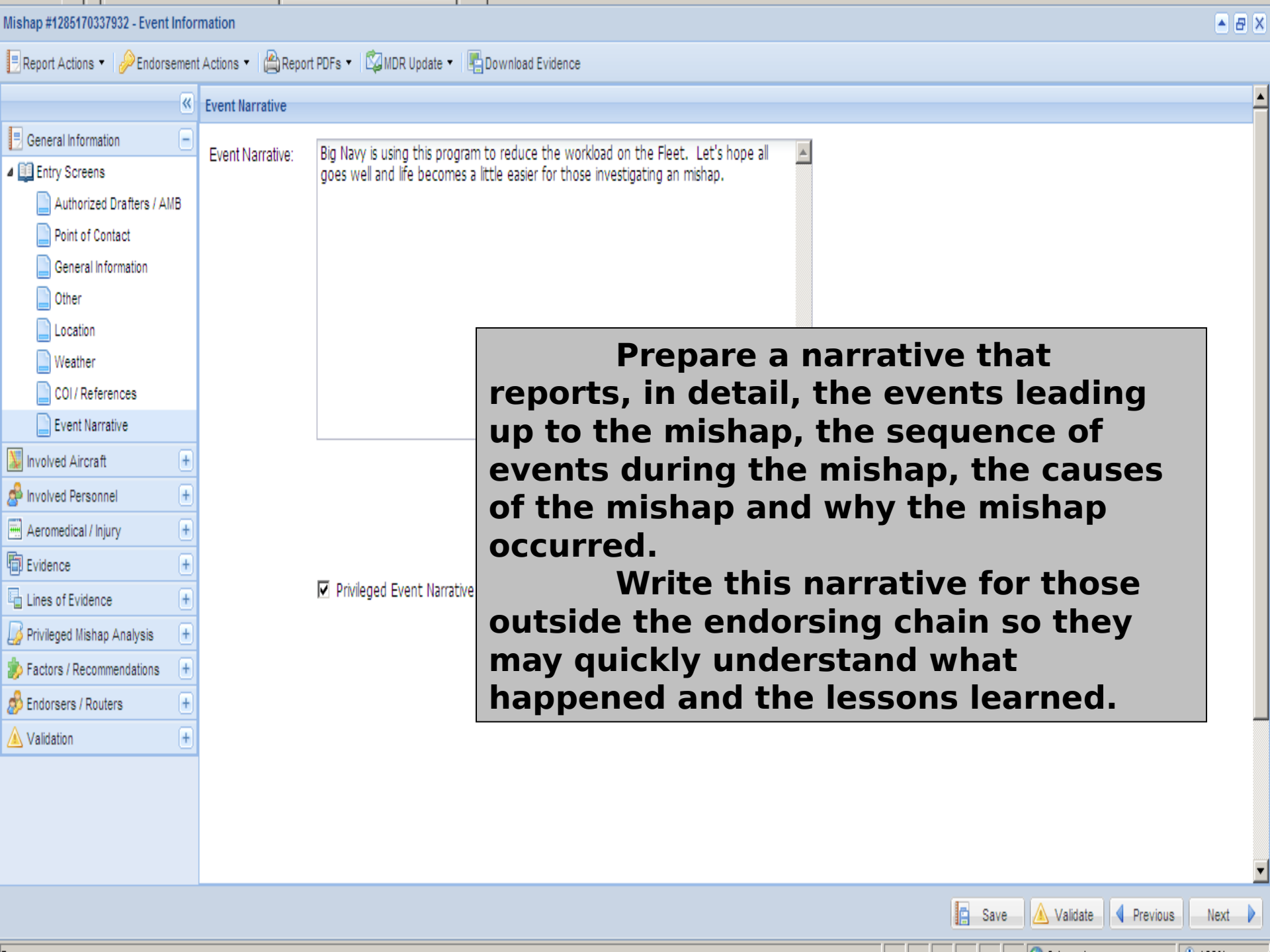
4TH MARINE AIRCRAFT WING - 4TH MAW (M67
CHIEF BUREAU OF MEDICINE AND SURGERY
CHIEF OF NAVAL AIR TRAINING CORPUS CHRI
CHIEF OF NAVAL OPERATIONS (N00011)
COMMANDANT OF THE MARINE CORPS (M000
COMMANDER NAVAL AIR FORCE US ATLANTIC

AIR TEST & EVALUATION SQUADRON 30 - VX-30 (

CADs:

1st CAD
2nd CAD
3rd CAD
ALL AIRCRAFT ACTIVITIES
ALL ATC ACTIVITIES

ALL MULTIENGINE AND TRAINING AIRCRAFT ACTIVITIES


Mishap #1285170337932 - Event Information
Report Actions
Endorsement Actions
Report PDFs
MDR Update
Download Evidence
Event Narrative
General Information
Entry Screens
Authorized Drafters / AMB
Point of Contact
General Information
Other
Location
Weather
COI / References
Event Narrative
Involved Aircraft
Involved Personnel
Aeromedical / Injury
Evidence
Lines of Evidence
Privileged Mishap Analysis
Factors / Recommendations
Endorsers / Routers
Validation
Event Narrative:
Big Navy is using this program to reduce the workload on the Fleet. Let's hope all goes well and life becomes a little easier for those investigating an mishap.
Privileged Event Narrative
Prepare a narrative that reports, in detail, the events leading up to the mishap, the sequence of events during the mishap, the causes of the mishap and why the mishap occurred.
Write this narrative for those outside the endorsing chain so they may quickly understand what happened and the lessons learned.
Save
Validate
Previous
Next

Report Actions | Endorsement Actions | Report PDFs | MDR Update | Download Evidence

- General Information
- Involved Aircraft
  - Add / Remove
  - NP-3D
- Involved Personnel
- Aeromedical / Injury
- Evidence
- Lines of Evidence
- Privileged Mishap Analysis
- Factors / Recommendations
- Endorsers / Routers
- Validation

Aircraft

Accountable Organization:	NAVY
Aircraft Model:	NP003D
IDRC Phase:	N/A
Reporting Custodian Uic:	N39788
Damage Cost:	0000000
BUNO/FAA Identification:	123456
Modex:	1327
Operational Status:	HOME BASED / LOCAL OPS
Controlling Custodian:	NAVAIRSYSCOM (NASC)
Carrier Airwing:	Select Carrier Airwing

Embarked/Ashore:	○ Embarked ◉ Ashore
Functional Check Flight Indicator:	○ Yes ◉ No ○ Unknown ○ N/A
Pre-Deployment Workups:	○ Yes ◉ No ○ Unknown ○ Not Reported
Strike Damage:	○ Yes ◉ No
Unmanned Aerial Vehicle?:	○ Yes ◉ No
Manned at Impact:	○ Yes ◉ No ○ Unknown ○ N/A
# Aircrew In Aircraft:	0
# Injured Aircrew:	0
# Of Aircraft Occupants:	0
# Passengers In Aircraft:	0
# Injured Passengers:	0
# Uninjured Passengers:	0

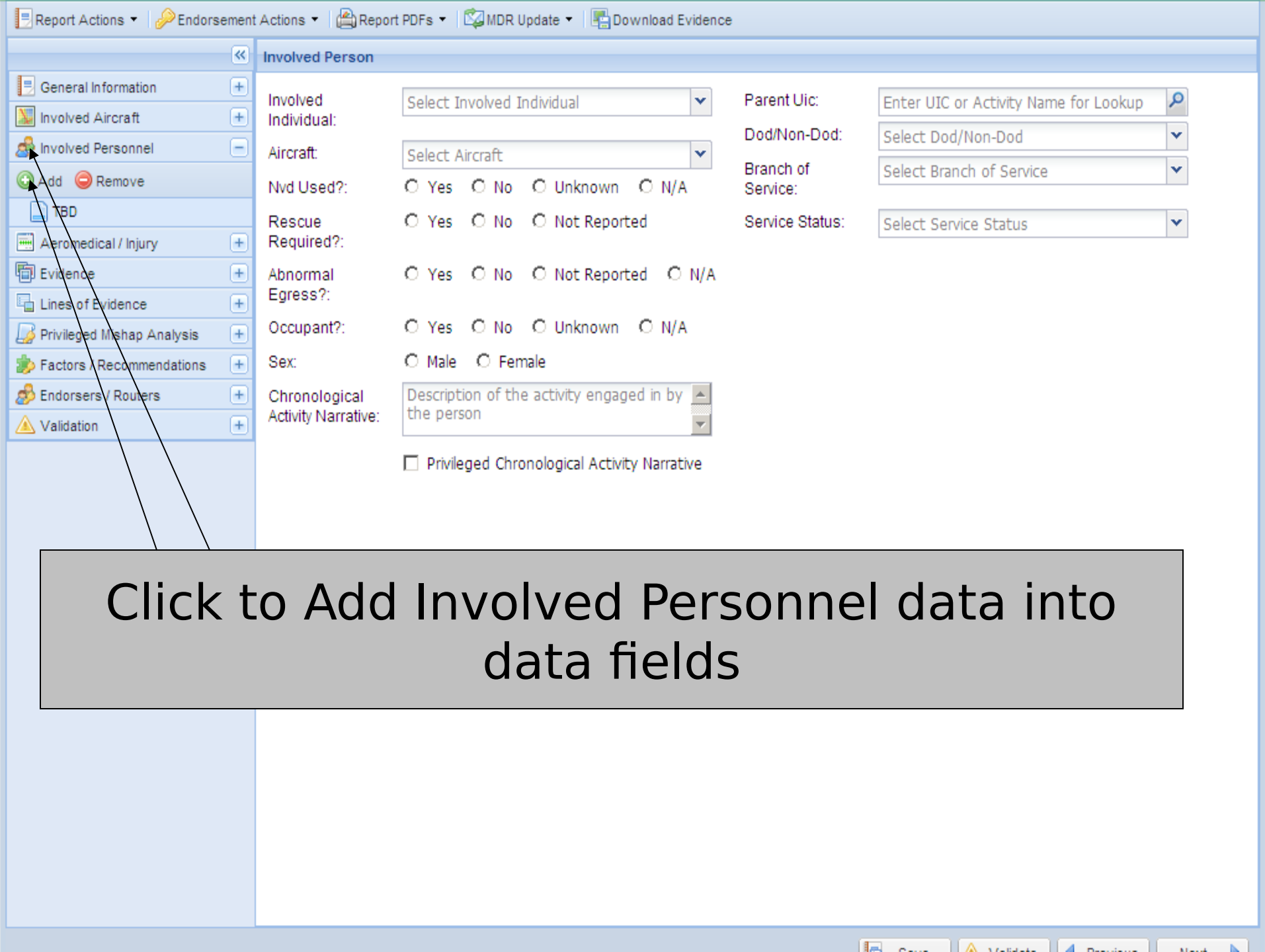
1

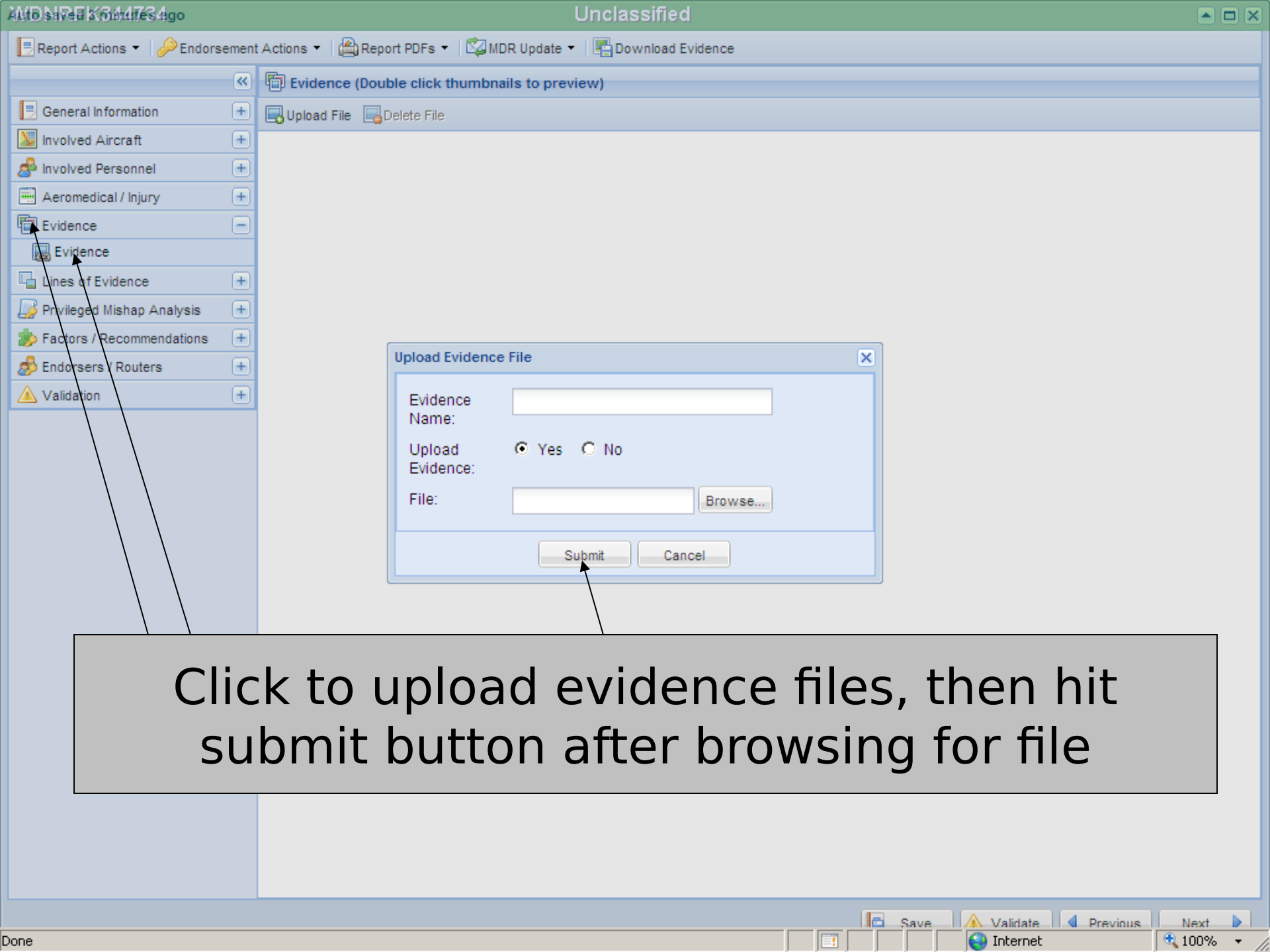
Click to Add Involved aircraft and fill in data fields; save once complete

List all aircraft or UAVs involved by
(1) model/series (e.g., SH-60F),
(2) bureau number,
(3) modex/side number,
(4) reporting custodian (this aircraft or UAV),
using UIC (this aircraft or UAV) or activity name.

Incident Occurrence

Save | Validate | Previous | N


Report Actions
Endorsement Actions
Report PDFs
MDR Update
Download Evidence
General Information
Involved Aircraft
Involved Personnel
Add
Remove
TBD
Aeromedical / Injury
Evidence
Lines of Evidence
Privileged Mishap Analysis
Factors / Recommendations
Endorsers / Routers
Validation
Involved Person
Involved Individual:
Select Involved Individual
Aircraft:
Select Aircraft
Nvd Used?:
Yes
No
Unknown
N/A
Rescue Required?:
Yes
No
Not Reported
Abnormal Egress?:
Yes
No
Not Reported
N/A
Occupant?:
Yes
No
Unknown
N/A
Sex:
Male
Female
Chronological Activity Narrative:
Description of the activity engaged in by the person
Privileged Chronological Activity Narrative
Parent Uic:
Enter UIC or Activity Name for Lookup
Dod/Non-Dod:
Select Dod/Non-Dod
Branch of Service:
Select Branch of Service
Service Status:
Select Service Status
Click to Add Involved Personnel data into data fields



Click to upload evidence files, then hit submit button after browsing for file

Report Actions | Endorsement Actions | Report PDFs | MDR Update | Download Evidence

- General Information
- Involved Aircraft
- Involved Personnel
- Aeromedical / Injury
- Evidence
  - Evidence
- Lines of Evidence
- Privileged Mishap Analysis
- Factors / Recommendations
- Endorsers / Routers
- Validation

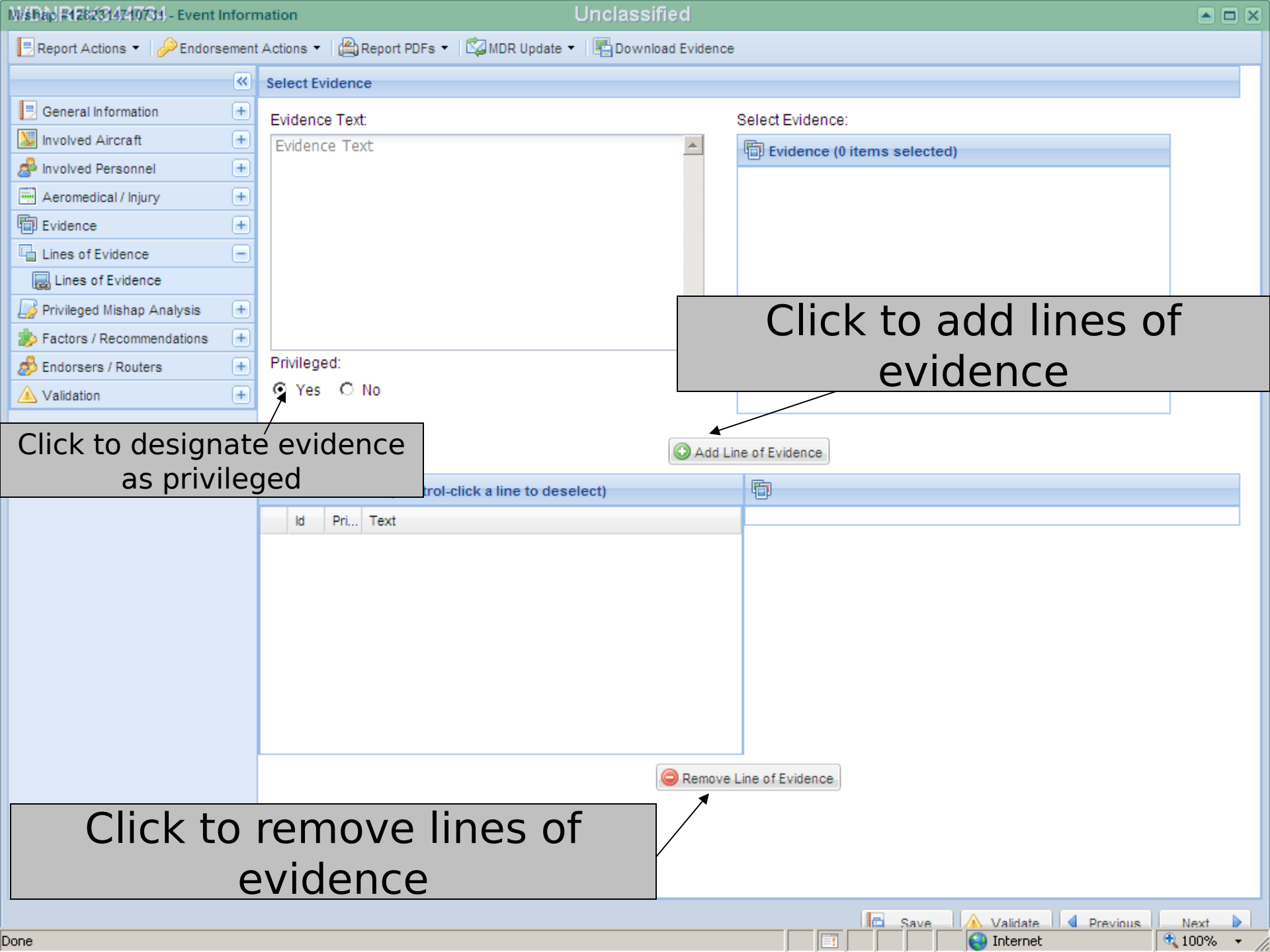
Evidence (Double click thumbnails to preview)

Upload File | Delete File

phased array

maintenance tome

Save | Validate | Previous | Next


Unclassified
Report Actions
Endorsement Actions
Report PDFs
MDR Update
Download Evidence
General Information
Involved Aircraft
Involved Personnel
Aeromedical / Injury
Evidence
Lines of Evidence
Lines of Evidence
Privileged Mishap Analysis
Factors / Recommendations
Endorsers / Routers
Validation
Select Evidence
Evidence Text:
Evidence Text
Select Evidence:
Evidence (0 items selected)
Privileged:
Yes
No
Click to designate evidence as privileged
Click to add lines of evidence
Add Line of Evidence
Id
Pri...
Text
Remove Line of Evidence
Click to remove lines of evidence
Save
Validate
Previous
Next
Done
Internet
100%

Report Actions | Endorsement Actions | Report PDFs | MDR Update | Download Evidence

- General Information
- Involved Aircraft
- Involved Personnel
- Aeromedical / Injury
- Evidence
- Lines of Evidence
  - Lines of Evidence
- Privileged Mishap Analysis
- Factors / Recommendations
- Endorsers / Routers
- Validation

Select Evidence

Evidence Text:

Evidence Text

Privileged:

(•) Yes ( ) No

Select Evidence:

Evidence (0 items selected)

phased array

maintenance tome

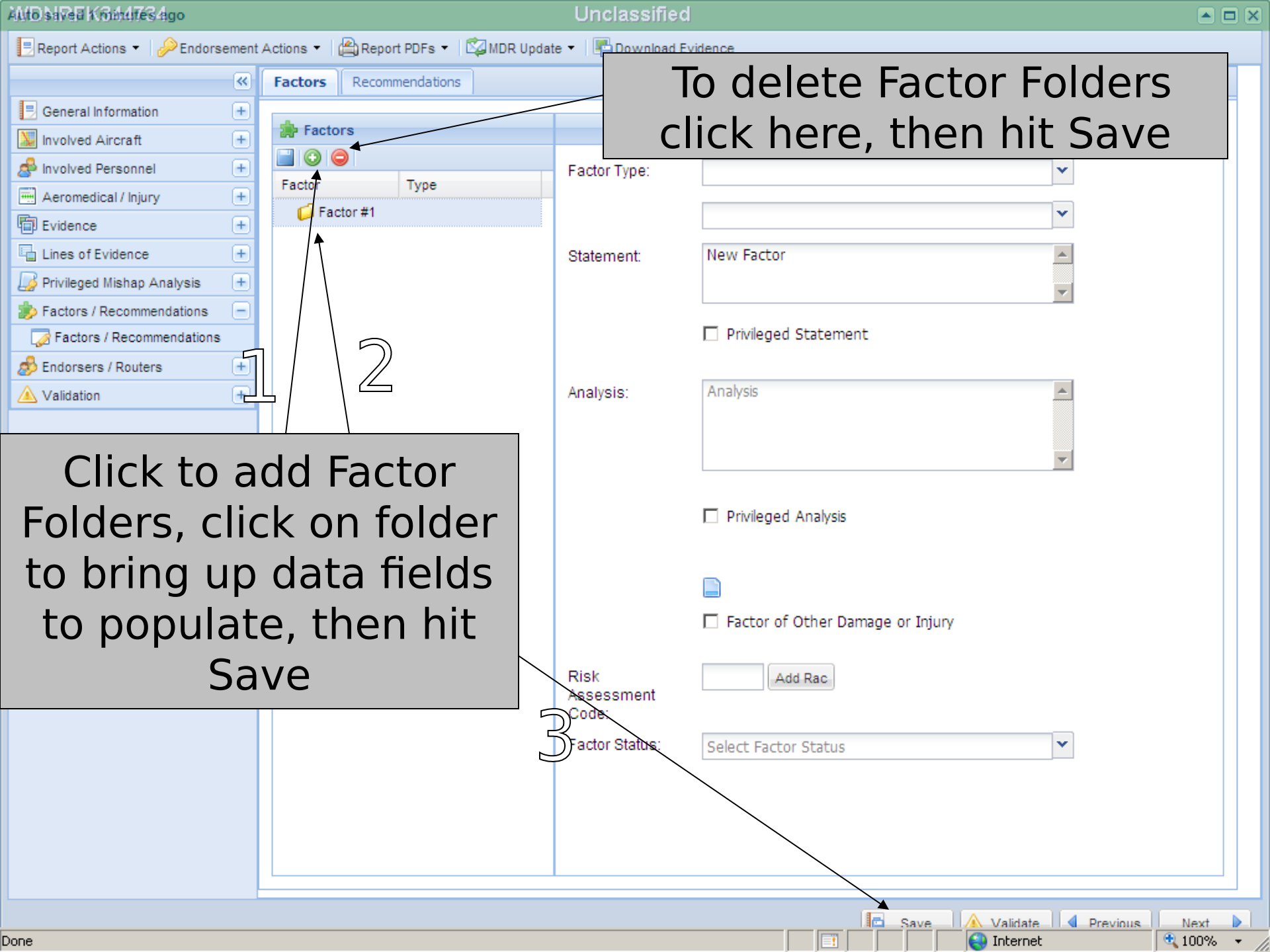
Add Line of Evidence

Lines of Evidence (Control-click a line to deselect)

Id	Priv?	Text
1	Y	Battery charger checked out by AME2 Sanford. (Tool room che...
2	N	Tool room inventory 29 January, sans battery charger.
3	Y	

Remove Line of Evidence

Save | Validate | Previous | Next


Unclassified
Report Actions
Endorsement Actions
Report PDFs
MDR Update
Download Evidence
Factors
Recommendations
To delete Factor Folders click here, then hit Save
General Information
Involved Aircraft
Involved Personnel
Aeromedical / Injury
Evidence
Lines of Evidence
Privileged Mishap Analysis
Factors / Recommendations
Factors / Recommendations
Endorsers / Routers
Validation
Factors
Factor
Type
Factor #1
1
2
Factor Type:
Statement:
New Factor
Privileged Statement
Analysis:
Analysis
Privileged Analysis
Factor of Other Damage or Injury
Risk Assessment Code:
Add Rac
3
Factor Status:
Select Factor Status
Click to add Factor Folders, click on folder to bring up data fields to populate, then hit Save
Save
Validate
Previous
Next
Done
Internet
100%

Report Actions | Endorsement Actions | Report PDFs | MDR Update | Download Evidence

- General Information
- Involved Aircraft
- Involved Personnel
- Aeromedical / Injury
- Evidence
- Lines of Evidence
- Privileged Mishap Analysis
- Factors / Recommendations
  - Factors / Recommendations
- Endorsers / Routers
- Validation

Factors | Recommendations

Factors

Factor	Type
Factor #1	

Factor Type: HUMAN FACTOR

Statement: New Factor

MP FAILED TO LOWER THE LANDING GEAR

☐ Privileged Statement

Analysis: Analysis

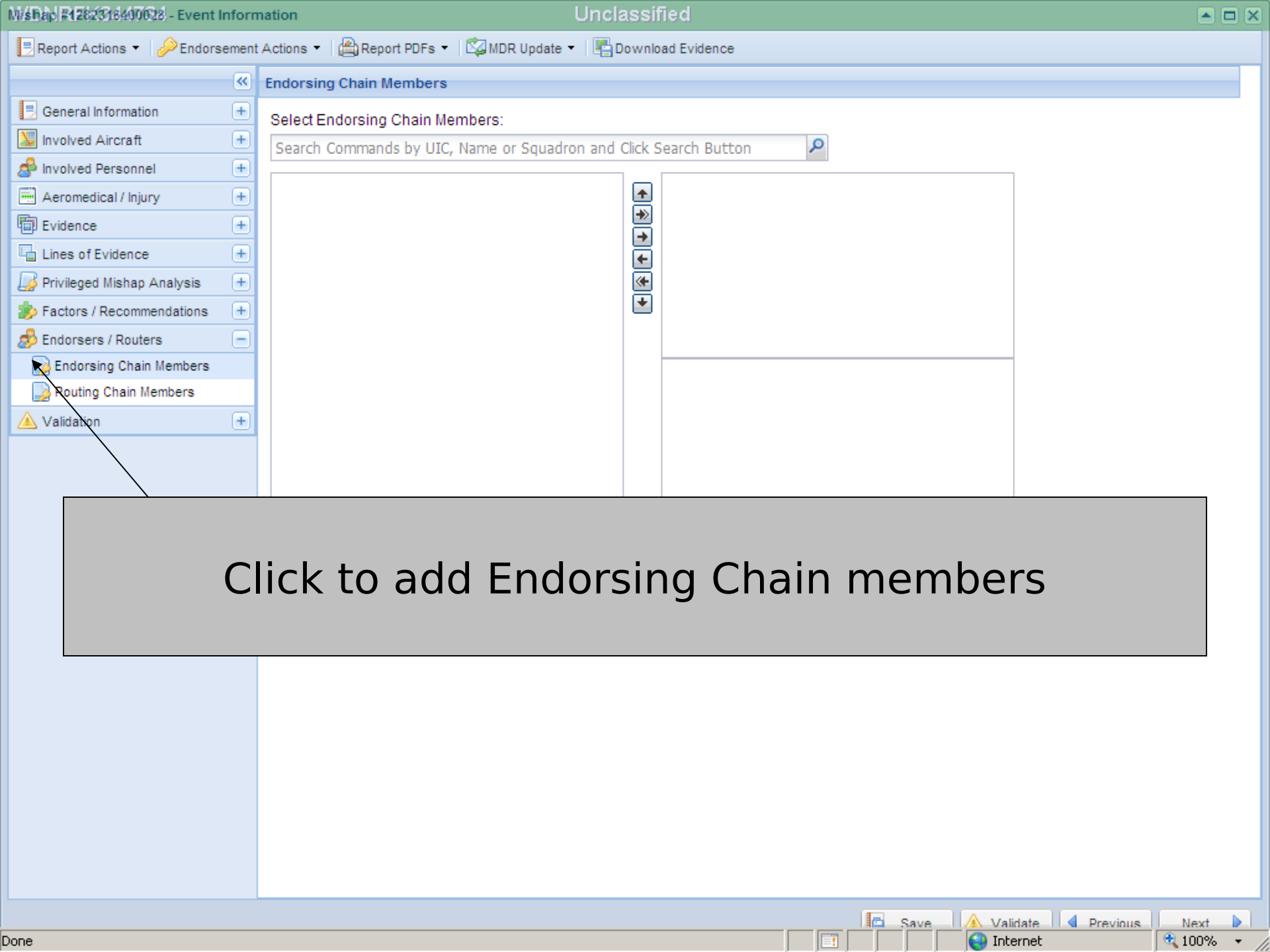
AN E.I. REVEALED LANDING GEAR SYSTEM WAS FULLY OPERATIONAL AT THE TIME OF THE MISHAP AND POST-MISHAPINVESTIGATION AND PHOTOGRAPHS INDICATE THE LANDING GEAR HANDLE IN THE UP POSITION. MP HAD ONLY FOUR HOURS SLEEP (PC-307) PRIOR TO THE FLIGHT. THE COMMAND DID NOT HAVE AN ADEQUATE DUTY OFFICER INSTRUCTION AND THE DUTY OFFICER CALLED THE MP TO ANSWER SCHEDULING QUESTIONS THEREBY, NOT ALLOWING HIM THE REST REQUIRED BY OPNAVINST 3710.7 (SV-001). BASED ON THE ABOVE ANALYSIS THE AMB CONCLUDES MP FAILED TO LOWER THE LANDING GEAR BECAUSE HE LACKED ADEQUATE REST AND WAS DISTRACTED BY A RADIO CALL.

☐ Factor of Other Damage or Injury

Risk Assessment Code: RAC-1 Add Rac

Factor Status: Select ACCEPTED.

Save | Validate | Previous | Next


Unclassified
- Event Information
Report Actions
Endorsement Actions
Report PDFs
MDR Update
Download Evidence
General Information
Involved Aircraft
Involved Personnel
Aeromedical / Injury
Evidence
Lines of Evidence
Privileged Mishap Analysis
Factors / Recommendations
Endorsers / Routers
Endorsing Chain Members
Routing Chain Members
Validation
Endorsing Chain Members
Select Endorsing Chain Members:
Search Commands by UIC, Name or Squadron and Click Search Button
Click to add Endorsing Chain members
Save
Validate
Previous
Next
Done
Internet
100%

Mishap # 123316400028 - Event Information

Report Actions | Endorsement Actions | Report PDFs | MDR Update | Download Evidence

- General Information
- Involved Aircraft
- Involved Personnel
- Aeromedical / Injury
- Evidence
- Lines of Evidence
- Privileged Mishap Analysis
- Factors / Recommendations
- Endorsers / Routers
  - Endorsing Chain Members
  - Routing Chain Members
- Validation

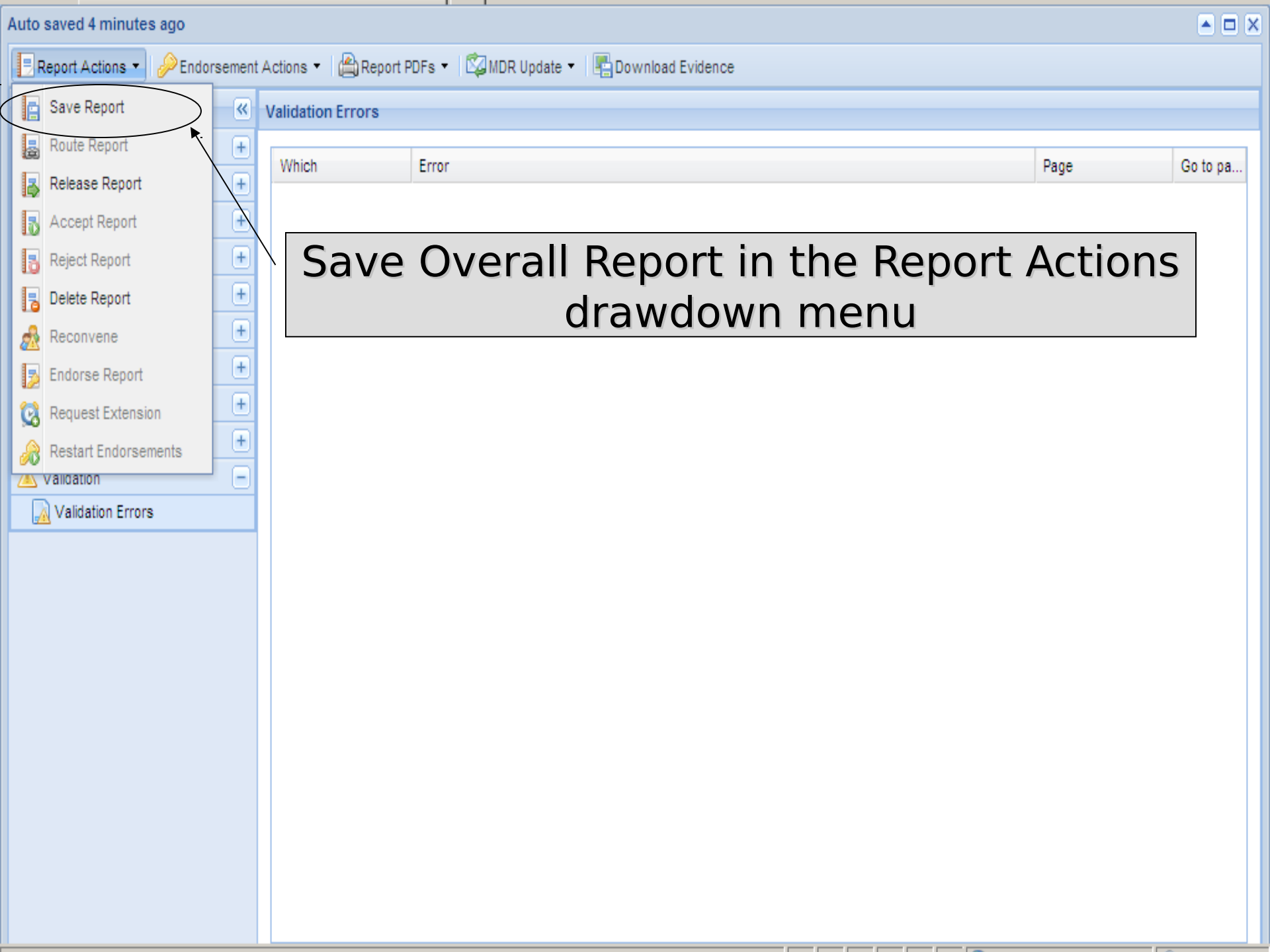
Routing Chain Members

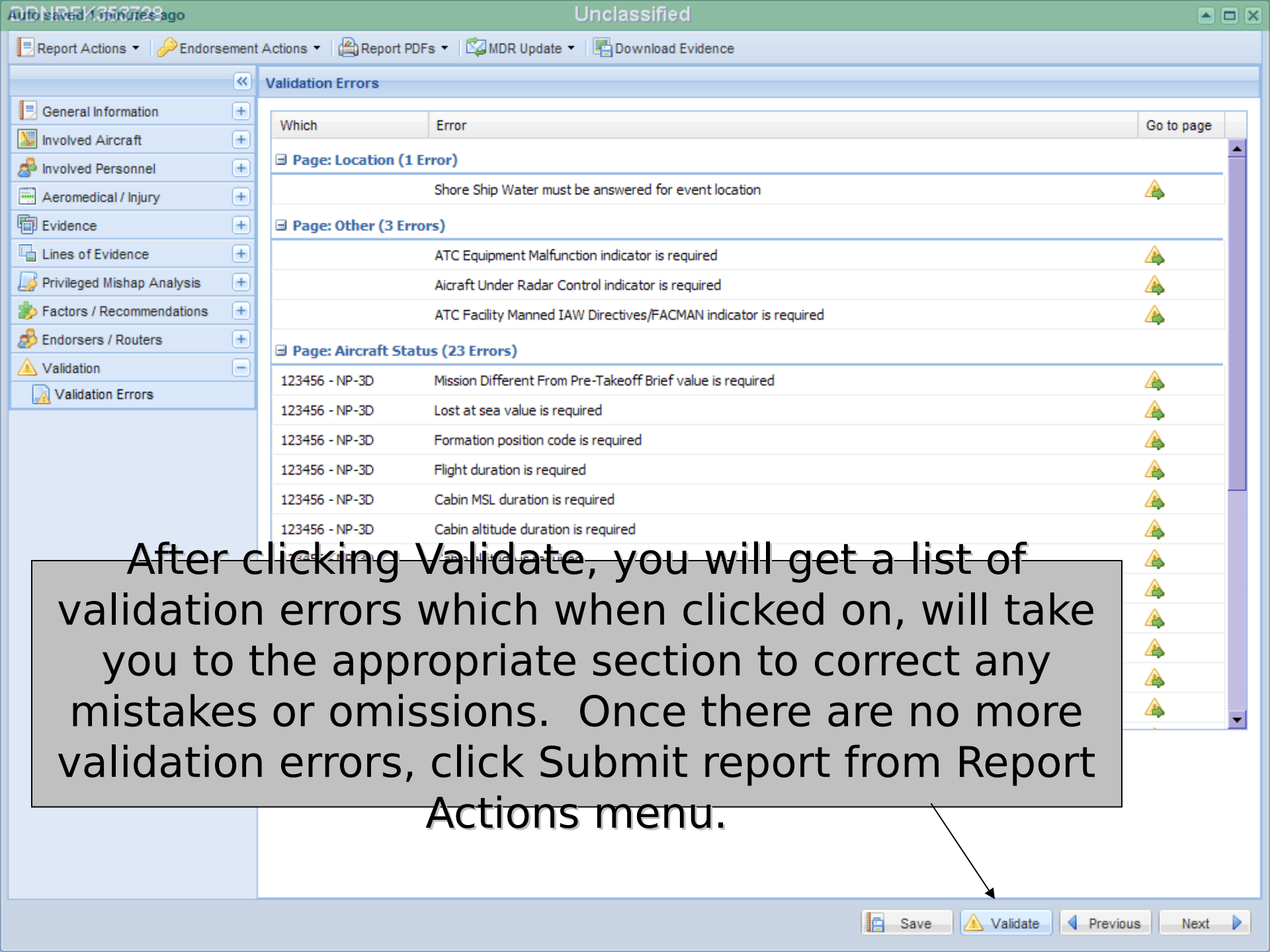
Select Routing Chain Members:

Search Accounts by UIC, First Name or Last Name and Click Search Button

Click to add Routing Chain members

Save | Validate | Previous | Next


Auto saved 4 minutes ago
Report Actions
Endorsement Actions
Report PDFs
MDR Update
Download Evidence
Save Report
Route Report
Release Report
Accept Report
Reject Report
Delete Report
Reconvene
Endorse Report
Request Extension
Restart Endorsements
Validation
Validation Errors
Validation Errors
Which
Error
Page
Go to pa...
Save Overall Report in the Report Actions drawdown menu



After clicking Validate, you will get a list of validation errors which when clicked on, will take you to the appropriate section to correct any mistakes or omissions. Once there are no more validation errors, click Submit report from Report Actions menu.